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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/466,828	12/20/1999	SHUNPEI YAMAZAKI	0756-2077	1635
31780	7590	10/26/2007		
ERIC ROBINSON			EXAMINER	
PMB 955			NGO, NGAN V	
21010 SOUTHBANK ST.				
POTOMAC FALLS, VA 20165				
			ART UNIT	PAPER NUMBER
			2818	
			MAIL DATE	DELIVERY MODE
			10/26/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

09/466,828

Applicant(s)

YAMAZAKI ET AL.

Examiner

Ngan Ngo

Art Unit

2818

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

The amendment filed June 25, 2007 has been entered and made of record as paper no. 0607.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4-8, 10, 12-14, 16-18, 20-27, 29, 31-33, 35, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Troxell et al (US 4,851,363, of record) in view of Mimura et al (US 4,954,855).

Troxell discloses a method and a device comprising a silicon oxide insulating film (24,26, and 28) over a glass substrate (10) and a crystalline semiconductor island (100, 101, and 102). Since the silicon oxide insulating film does not have halogen and carbon (which are about zero), it is clear that the insulating film (24,26, and 28) have halogen at a concentration less than  $5 \times 10^{20} \text{ cm}^{-3}$  and carbon at a concentration less than  $5 \times 10^{19} \text{ cm}^{-3}$ . Mimura et al further teach that silicon oxide can be made by plasma CVD. Note lines 50-53, column 5 of Mimura et al. Therefore it would have been obvious to one of ordinary skill in the art to form the silicon oxide by plasma CVD as taught by Mimura in Troxell's device.

In re claim 25, Troxell shows the interlayer (35,36)

Claims 3, 9, 11, 15, 19, 28, 30, 34, and 37-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Troxell et al (US 4851363) in view of Mimura et al (US 4,954,855) as applied to claims 1, 2, 4-8, 10, 12-14, 16-18, 20-27, 29, 31-33,

35, and 36 above, and further in view of Tamai et al (US 5506064) and Inushima et al (US 5629245).

Troxell discloses all the subject matter discussed above. Tamai further teaches that carbon can be detected by second ion mass spectroscopy. Note lines 12 to 15, column 3 of Tamai. Inushima further teaches that insulating film can be formed by plasma CVD using an organic silane. Note lines 46-51, column 3 of Inushima et al. Therefore, it would have been obvious to one of ordinary skill in the art to use the teachings of Troxell, Mimura, Tamai, and Inushima to form the claimed method and device.

Any inquiry concerning this communication should be directed to Examiner Ngan Ngo at telephone number (571) 272-1711. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number:  
09/466,828  
Art Unit: 2818

Page 4

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Ngan Van Ngo  
Primary Examiner

Ngan Ngo

October 24, 2007